MASTER OF SCIENCE
IN
INFORMATION SYSTEMS AND
OPERATIONS

INFLUENCE NET MODELING: THE NARCOTICS NETWORK IN COLOMBIA
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The purpose of this thesis is to conduct the research necessary to develop a situational influence assessment model to identify critical indicators that will assist the USSOUTHCOM in identifying potential key centers of gravity in the fight against illicit drug production and narcotrafficking in Colombia. Efforts to combat the narcotics network directly support the USSOUTHCOM mission and are integral to U.S. National Security. Unlike the traditional military threats of the Cold War and previous decades, to include *Operation Desert Storm*, this problem set is far more complex and complicated with roots and foundations that date back to the development of Colombia as a nation-state. It is the strategic dilemma that is posed by this asymmetric threat that reflects the type of problems that will be encountered by the military of the 21st century. Unlike the traditional land/sea/air combined warfare that the U.S. dominates globally, the threats of the 21st century will look much like Colombia – small, packetized, networked organizations with the ability to operate and inflict casualties below the threshold of our traditional military mechanisms. Improved decision support systems to model this type of problem are needed. This thesis suggests a number of modifications to an existing model, SIAM, in order to enhance its usefulness both for decision makers and intelligence collectors.

DoD KEY TECHNOLOGY AREAS: Other (Information Operations, Intelligence Information Management)

KEYWORDS: Information Operations, Intelligence, Decision Support Systems, Influence Net Modeling, Colombia

NAVAL RESERVE SUPPORT TO INFORMATION OPERATIONS WARFIGHTING
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Since the mid-1990s, the Fleet Information Warfare Center (FIWC) has led the Navy's Information Operations (IO) support to the Fleet. Within the FIWC manning structure, there are in total 36 officer and 84 enlisted Naval Reserve billets that are manned to approximately 75 percent and located in Norfolk and

San Diego Naval Reserve Centers. These Naval Reserve Force personnel could provide support to FIWC far and above what they are now contributing specifically in the areas of Computer Network Operations, Psychological Operations, Military Deception and Civil Affairs. Historically personnel conducting IO were primarily reservists and civilians in uniform with regular military officers being by far the minority. The Naval Reserve Force has the personnel to provide skilled IO operators but the lack of an effective manning document and training plans is hindering their opportunity to enhance FIWC's capabilities in full spectrum IO. This research investigates the skill requirements of personnel in IO to verify that the Naval Reserve Force has the talent base for IO support and the feasibility of their expanded use in IO.

DoD KEY TECHNOLOGY AREA: Manpower, Personnel, and Training

KEYWORDS: Information Operations, Naval Reserve Personnel

PERCEPTION MANAGEMENT AND COALITION INFORMATION OPERATIONS
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This thesis focuses on the conduct of perception management (PM) within coalitions. Research has alluded to the possibility of predicting human behavior by creating stories that convey a believable reality. Further, does PM have any organizational process relationship with engagement planning? Target selection? Press statement coordination? The thesis focuses on how well coalitions are poised to conduct integrated PM operations. It identifies current PM capabilities by studying two recent coalition operations and determines how to best coordinate integration efforts.

The purpose of this study is to analyze various methods of perception management and determine how they can be incorporated into current U.S. Information Operations. One area of study will be the importance of credibility of our leaders when placed in a position of authority. This study will show that credibility is one of the toughest factors to achieve. A second area of study will be the value of story telling in gaining populace support and validation for intervening in conflicts that require the use of force and soldiers. As Stephen Pease said, "the message must be believable, though not necessarily true." (Stephen Pease 1950)

DoD KEY TECHNOLOGY AREAS: Other (Information Systems and Operations, Perception Management)

KEYWORDS: Perception Management, Coalition Operations, Information Systems and Operations, Information Warfare, Information Operations